

## ***In vitro* Evaluation of Fungicides, Bio-control Agents and Botanicals against Major Seed Borne Fungus, *Alternaria sesami***

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### **ABSTRACT**

Eleven fungicides including three combination products, six isolates of biocontrol agents and six botanical extracts were tested against *Alternaria sesami*, major seed borne pathogen of sesame under *in vitro* conditions using poisoned food and dual culture techniques. Among the fungicides evaluated, combination product of carbendazim 12% + mancozeb 63% @ 0.2% was most effective with minimum mycelial growth (5.27 mm) and highest inhibition of mycelial growth (94.14%) which was significantly superior to all other fungicides tested. Azoxystrobin @ 0.1% was the least effective with 38.46 mm growth and 57.27% inhibition of mycelial growth. Among biocontrol agents, minimum radial growth (12.01 mm) and maximum inhibition of mycelial growth of *A. sesami* over control (86.66%) was obtained with *Trichoderma viride* (isolate-2) followed by *Pseudomonas fluorescens* (isolate-1) with 12.50 mm radial growth and 86.11% mycelial inhibition. Garlic clove extract 10% was significantly superior to other botanical extracts with 20.59 mm radial growth and 72.55% mycelial inhibition over control.

**Keywords:** *Alternaria sesami*, Biocontrol agent, Botanicals and Fungicides.